



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,016	10/21/2003	Justin R. Morris	12821.34USC2	5006

7590 05/17/2005

ATTN: Gregory A. Sebald  
MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903

EXAMINER
----------

GELLNER, JEFFREY L

ART UNIT	PAPER NUMBER
----------	--------------

3643

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/691,016	MORRIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeffrey L. Gellner	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 38-78 is/are pending in the application.
- 4a) Of the above claim(s) 67-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-66 and 76-78 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*H/L*

### **DETAILED ACTION**

Acknowledgement is made of Applicant's IDS received 29 March 2004. Due to the difficulty of obtaining of the foreign art and non-patent literature, Examiner requests Applicant to supply copies of these documents.

#### ***Election/Restrictions***

Applicant's election with traverse of Invention I in the reply filed on 23 August 2004 is acknowledged. The traversal is on the ground(s) that . This is not found persuasive because the searches would diverge which would be a burden on the Examiner. Additionally, the legal standard for restriction is whether the sets of claims are patently distinct and not whether they are closely related.

The requirement is still deemed proper and is therefore made FINAL. Claims 67 to 75 are withdrawn from examination because they are drawn to the non-elected invention. Claims 76-78 are considered within the ambit of Invention I and are not withdrawn.

Art Unit: 3643

### *Specification*

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. However, the disclosure is objected to because of the following informality:

The "CROSS-REFERECNE TO RELATED APPLICATIONS" section should be updated to show that 10/014,914 has been abandoned.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 38, 40-42, 49, and 76 are rejected under 35 U.S.C. §102(b) as being anticipated by Brumat (US 4,257,213).

As to Claims 38, 40-42, Brumat discloses a apparatus for vineyard mechanization comprising a mechanical pruner ("pair of arms for topping" of col. 2 line 18); a mechanical shoot thinner ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the suckers are removed); and, a mechanical fruit thinner ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the buds are removed). The apparatus of Brumat inherently discloses the method steps recited in claim 38.

Art Unit: 3643

As to Claim 49, Brumat discloses a apparatus for vineyard mechanization comprising a mechanical pruner (“pair of arms for topping” of col. 2 line 18); a shoot thinning unit (“operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the suckers are removed); and, a fruit thinning unit (“operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the buds are removed). The apparatus of Brumat inherently discloses the method steps recited in claim 49.

As to claim 76, Brumat discloses a apparatus for vineyard mechanization comprising a dedicated mechanical pruner (one of the “pair of arms for topping” of col. 2 line 18); a dedicated mechanical shoot thinner (other of the “operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the suckers are removed); and dedicated mechanical fruit thinning tool (when operated after shoot thinning). The apparatus of Brumat inherently performs the method steps recited in claim 76 and maintain the quality of the fruit.

### ***Claim Rejections - 35 USC §103***

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39, 43, 44-46, 48, 50, and 77 are rejected under 35 U.S.C. §103(a) as being unpatentable over Brumat (US 4,257,213) in view of Hiyama et al. (US 4,255,922).

As to claims 39, 43, and 44, the limitations of Claim 38 are disclosed as described above. Not disclosed is the apparatus further comprising a mechanical harvester that is a shaker tool.

Art Unit: 3643

Hiyama et al., however, further discloses a harvester that is a shaker (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a mechanical harvester as disclosed by Hiyama et al. so as reduce costs of harvest. The apparatus of Brumat as modified by Hiyama et al. inherently perform the method steps recited in claim 39.

As to claim 45, Brumat as modified by Hiyama et al. further disclose a cutting bar (Fig. 2 of Brumat).

As to claim 46, Brumat as modified by Hiyama et al. further disclose a plurality of strikers (27 of Brumat).

As to claim 48, Brumat discloses a apparatus for vineyard mechanization comprising a dedicated mechanical pruner (one of the “pair of arms for topping” of col. 2 line 18); a dedicated mechanical shoot thinner (other of the “operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the suckers are removed). Not disclosed is a dedicated mechanical harvesting tool. Hiyama et al., however, further discloses a dedicated harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a dedicated mechanical harvester as disclosed by Hiyama et al. so as reduce costs of harvest. The apparatus of Brumat as modified by Hiyama et al. inherently perform the method steps recited in claim 48.

As to claim 50, limitations of Claim 49 are disclosed as described above. Not disclosed is the apparatus further comprising a mechanical harvester. Hiyama et al., however, further discloses a harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a mechanical

Art Unit: 3643

harvester as disclosed by Hiyama et al. so as reduce costs of harvest. The apparatus of Brumat as modified by Hiyama et al. inherently perform the method steps recited in claim 50.

As to claim 77, limitations of Claim 76 are disclosed as described above. Not disclosed is the apparatus further comprising a dedicated mechanical harvester. Hiyama et al., however, further discloses a dedicated mechanical harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a dedicated mechanical harvester as disclosed by Hiyama et al. so as reduce costs of harvest. The apparatus of Brumat as modified by Hiyama et al. inherently perform the method steps recited in claim 77.

Claims 47, 51, 52, 55-58, and 60-62 are rejected under 35 U.S.C. §103(a) as being unpatentable over Brumat (US 4,257,213) in view of Mead et al. (US 4,383,400).

As to claim 47, the limitations of Claim 38 are disclosed as described above. Not disclosed is the method(apparatus) step comprising leaf removal. Mead et al., however, discloses an apparatus for leaf removal ("foliage trimming" of col. 2 lines 46-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a means for leaf removal as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18).

As to claim 51, the limitations of Claim 49 are disclosed as described above. Not disclosed is the method(apparatus) step comprising a canopy adjustment by removing a portion of the canopy on a single curtain trellis. Mead et al., however, discloses an apparatus for removing a portion of the canopy ("foliage trimming" of col. 2 lines 46-50). It would have been

Art Unit: 3643

obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a means for canopy adjustment (removal) as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18) and to use on a single curtain trellis depending upon the available type of trellis.

As to Claims 52 and 57, Brumat discloses an apparatus for the mechanization method of grapes comprising a mechanical pruner ("pair of arms for topping" of col. 2 line 18); a shoot thinner ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the suckers are removed, considered a pruner unit); and, a mechanical fruit thinner ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the buds are removed) for removing excess fruit. Not disclosed is opening the centers with a mechanical unit and keeping centers clean using a mechanical unit and the grapes being trained on a GDC trellis. Mead et al., however, discloses a mechanical unit for opening centers (Fig. 6, col. 3 lines 28-27) and keeping centers clean using a mechanical unit (Fig. 6, col. 3 lines 28-27, in that repeated use would keep centers clean). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a unit for cleaning centers and keeping the centers clean as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18) and to use on a GDC trellis depending upon the available type of trellis. . The apparatus of Brumat as disclosed by Mead et al. inherently recite the method steps of claim 52.

As to claims 55 and 56, the limitations of Claim 52 are disclosed as described above. Not disclosed is the center unit a slapper or breaker unit. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the apparatus of Brumat as



Art Unit: 3643

modified by Mead et al. by using a slapper or breaker unit so as to achieve a particular goal with the specific species of grape.

As to Claim 58, Brumat discloses an apparatus for the mechanization method of grapes comprising a mechanical pruner ("pair of arms for topping" of col. 2 line 18); a mechanical shoot thinner ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the suckers are removed, considered a pruner unit); and, a mechanical fruit thinner ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the buds are removed) for removing excess fruit. Not disclosed is a leaf removal and opening the centers with a mechanical device and the grapes being trained on a divided canopy trellis. Mead et al., however, discloses a mechanical unit for opening centers (Fig. 6, col. 3 lines 28-27) and an for leaf removal ("foliage trimming" of col. 2 lines 46-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a unit for cleaning centers and leaf removal as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18) and to use on a divided canopy trellis depending upon the available type of trellis. The apparatus of Brumat as disclosed by Mead et al. inherently recite the method steps of claim 58.

As to claim 60, the limitations of Claim 58 are disclosed as described above. Not disclosed is removing excessive leaves in the fruiting zone. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the apparatus of Brumat as modified by Mead et al. by removing leaves in the fruiting zone so as to increase the speed and efficiency of harvesting.

Art Unit: 3643

As to claims 61, the limitations of Claim 58 are disclosed as described above. Not disclosed is the center unit a slapper or breaker unit. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the apparatus of Brumat as modified by Mead et al. by using a slapper or breaker unit so as to achieve a particular goal with the specific species of grape.

As to claims 62, the limitations of Claim 58 are disclosed as described above. Not disclosed is the pruning being summer pruning using a pruning machine to cut sides and tops. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the apparatus of Brumat as modified by Mead et al. by pruning being summer pruning using a pruning machine to cut sides and tops so as to achieve a particular goal with the specific species of grape.

Claims 53, 59, and 63-66 are rejected under 35 U.S.C. §103(a) as being unpatentable over Brumat (US 4,257,213) in view of Mead et al. (US 4,383,400) in further view of Hiyama et al. (US 4,255,922).

As to claim 53, the limitations of Claim 52 are disclosed as described above. Not disclosed is the method further comprising a mechanical harvester. Hiyama et al., however, further discloses a mechanical harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the apparatus of Brumat as modified by Mead et al. by adding a mechanical harvester as disclosed by Hiyama et al. so as to reduce costs of harvest. The apparatus of Brumat as modified by Mead et al. and Hiyama et al. inherently perform the method steps recited in claim 53.

Art Unit: 3643

As to claim 59, the limitations of Claim 58 are disclosed as described above. Not disclosed is the method further comprising a mechanical harvester. Hiyama et al., however, further discloses a mechanical harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the apparatus of Brumat as modified by Mead et al. by adding a mechanical harvester as disclosed by Hiyama et al. so as to reduce costs of harvest. The apparatus of Brumat as modified by Mead et al. and Hiyama et al. inherently perform the method steps recited in claim 59.

As to Claim 63, Brumat discloses an apparatus for the mechanization method of grapes comprising a pruning unit ("pair of arms for topping" of col. 2 line 18); a shoot thinner ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the suckers are removed, considered a pruner unit); and, a fruit thinning device ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the buds are removed) for removing excess fruit. Not disclosed is minimal pruning, canopy removal in a vigorous, mature vineyard in a cool region with a slapper, and harvesting by using a mechanical harvester. Mead et al., however, discloses a mechanical unit for canopy removal ("foliage trimming" of col. 2 lines 46-50); Hiyama et al. discloses a mechanical harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a unit for canopy removal as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18) and to harvest mechanically as disclosed by Hiyama et al. so as to reduce the cost of harvesting and to use on a single cordon trellis with minimal pruning and canopy removal in a vigorous, mature vineyard in a cool region with a slapper depending upon the type

Art Unit: 3643

of grape grown. The apparatus of Brumat as modified by Mead et al. and Hiyama et al. inherently recite the method steps of claim 63.

As to Claim 64, Brumat discloses an apparatus for the mechanization method of grapes comprising a mechanical pruner (“pair of arms for topping” of col. 2 line 18); a mechanical shoot thinner (“operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the suckers are removed, considered a pruner unit); and, a mechanical fruit thinner (“operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the buds are removed) for removing excess fruit. Not disclosed is dormant pruning, early leaf removal and harvesting by using a mechanical harvester. Mead et al., however, discloses a mechanical unit for leaf removal (“foliage trimming” of col. 2 lines 46-50); Hiyama et al. discloses a mechanical harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a unit for leaf removal as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18) and to harvest mechanically as disclosed by Hiyama et al. so as to reduce the cost of harvesting and to use on a California T-trellis with dormant pruning and early leaf removal depending upon the type of grape grown. The apparatus of Brumat as modified by Mead et al. and Hiyama et al. inherently recite the method steps of claim 64.

As to Claim 65, Brumat discloses an apparatus for the mechanization method of grapes comprising a mechanical pruner (“pair of arms for topping” of col. 2 line 18); a shoot thinner (“operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the suckers are removed, considered a pruner unit); and, a mechanical device for removing excess fruit (“operating arms intended for bud/sucker removal” of col. 2 lines 7-8 in that the buds are

Art Unit: 3643

removed) for removing excess fruit. Not disclosed is dormant summer pruning, leaf removal, and harvesting by using a mechanical harvester. Mead et al., however, discloses a mechanical unit for leaf removal ("foliage trimming" of col. 2 lines 46-50); Hiyama et al. discloses a mechanical harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a unit for leaf removal as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18) and to harvest mechanically as disclosed by Hiyama et al. so as to reduce the cost of harvesting and to use with vertical moveable catch wires with dormant and summer pruning depending upon the type of grape grown. The apparatus of Brumat as modified by Mead et al. and Hiyama et al. inherently recite the method steps of claim 65.

As to Claim 66, Brumat discloses an apparatus for the mechanization method of grapes comprising a mechanical pruner ("pair of arms for topping" of col. 2 line 18); first and second shoot thinners ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the suckers are removed, considered a pruner unit); and, a mechanical device for removing excess fruit ("operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the buds are removed) for removing excess fruit. Not disclosed is dormant and summer pruning on upper and lower parts of the ballerina, leaf removal on the upper part of the ballerina, and harvesting by using a mechanical harvester. Mead et al., however, discloses a mechanical unit for leaf removal ("foliage trimming" of col. 2 lines 46-50); Hiyama et al. discloses a mechanical harvester (col. 18 lines 26-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by adding a unit for leaf removal as disclosed by Mead et al. so as to promote higher yield (col. 1 lines 15-18) and to harvest mechanically as

Art Unit: 3643

disclosed by Hiyama et al. so as to reduce the cost of harvesting and to use with a Smart-Dyson Ballerina trellis with specific type of dormant and summer pruning and shoot thinning depending upon the type of grape grown. The apparatus of Brumat as modified by Mead et al. and Hiyama et al. inherently recite the method steps of claim 66.

Claims 54 are rejected under 35 U.S.C. §103(a) as being unpatentable over Brumat (US 4,257,213) in view of Mead et al. (US 4,383,400) in further view of Oldridge (US 5,101,618; 24<sup>th</sup> document on page 2 of Applicant's 1449).

As to claim 54, the limitations of Claim 52 are disclosed as described above. Not disclosed is a shoot positioner. Oldridge, however, discloses a shoot positioner (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the apparatus of Brumat as modified by Mead et al. by adding a shoot positioner as disclosed by Oldridge so as to increase light penetration into the fruit zone (see Oldridge at col. 1 lines 9-12).

Claims 78 are rejected under 35 U.S.C. §103(a) as being unpatentable over Brumat (US 4,257,213) in view of Childers et al. (Modern Fruit Science).

As to claim 78, Brumat discloses a apparatus for vineyard mechanization comprising a dedicated mechanical pruner (one of the "pair of arms for topping" of col. 2 line 18); a dedicated mechanical shoot thinner (other of the "operating arms intended for bud/sucker removal" of col. 2 lines 7-8 in that the suckers are removed); and dedicated mechanical fruit thinning tool (when operated after shoot thinning). Not disclosed is the apparatus with a GDC trellis. Childers et al.,

Art Unit: 3643

however, discloses the use of an apparatus with a GDC trellis (Fig. 38 on page 493). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Brumat by using on a GDC trellis as disclosed by Childers et al. depending upon the grapes being grown. The apparatus of Brumat as modified by Childers et al. inherently performs the method steps recited in claim 78 and maintains the quality of the fruit.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Webb et al. disclose in the prior art a combination orchard apparatus.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jeffrey L. Gellner whose phone number is 571.272.6887. The Examiner can normally be reached Monday through Thursday from 8:30 am to 4:00 pm. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Peter Poon, can be reached at 571.272.6891. The official fax telephone number for the Technology Center where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey L. Gellner

Primary Examiner